

REMARKS/ARGUMENTS

Claims remaining in the present patent application are numbered 1, 2, 4-7, 9-12, 14-21, 23-26, and 28-35. Claims 1, 12, 20, and 31 have been amended. No new matter has been added herein. Claims 3, 8, 13, 22, and 27 have been cancelled. The rejections and comments of the Examiner set forth in the Office Action dated March 20, 2007 have been carefully considered by the Applicant. Applicant respectfully requests the Examiner to consider and allow the remaining claims.

35 U.S.C. §103(a) Rejections

The present Office Action rejected Claims 1, 2, 4-7, 9, 12, 14, 27-21, 23-26, and 31-35 under 35 U.S.C. §103(a) as being unpatentable over Ellesson et al. (US 6,459,682) (hereinafter referred to as 'Ellesson') in view of Bigus (US 5,745,652) (hereinafter referred to as 'Bigus'). Applicant has reviewed the above cited references and respectfully submits that the present invention as recited in Claims 1-35, is neither anticipated nor rendered obvious by the Ellesson reference taken alone or in combination with the Bigus reference.

Independent Claims 1, 12, 20, and 31

Applicant respectfully points out that independent Claims 1, 12, 20, and 31 each recite that the present invention includes a method and system for resource allocation in a communication network supporting a plurality of application environments. In particular, each of the independent Claims 1, 12, 20, and 31 recites that the present invention includes, in part:

calculating a plurality of demand values for a plurality of components, wherein said plurality of demand values is calculated from a combination of throughput and utilization metrics, wherein said components are communicatively coupled in series, wherein processing of a request from a user received at a first component of said plurality of components proceeds forward through said components to a last component in said series and then backward through said components to said first component and then to said user, wherein a performance of service is suspended at each of said components after said processing of a request by said each of said components, and wherein said metrics are measurable at points between said components;

(Emphasis Added)

The claimed embodiments of Claims 1, 12, 20, and 31 pertain to methods and systems of resource allocation in a communication network having a plurality of application environments. In particular, amended independent Claims 1, 12, 20, and 31 each recite that a request from a user is received at a first component and processed. The request is processed at each successive component until it reaches the last component, at which point the processing of the request is moved backward through the same components until it reaches the user once again. Additionally, after each component processes the request for a performance of service, the performance of service at that component is suspended. Support for these amendments can be found in Applicant's discussion of Figure 3, pages 7, line 22, through page 10, line 7.

Applicant respectfully notes that the Ellesson reference taken alone or in combination with the Bigus reference does not teach nor suggest the present invention as claimed in which a user's request for a performance of service is eventually returned to that user, as claimed in independent Claims 1, 12, 20, and 31 of the present invention. Nor is it taught or suggested that the performance of service for a component is suspended after that component processes a request, as claimed in independent Claims 1, 12, 20, and 31 of the present invention. In fact, both references remain silent as to a suspension of a performance of service after a component processes a request.

In contrast, the Ellesson reference teaches a system and method for controlling packet traffic in an IP network of originating, receiving, and intermediate nodes to meet performance objectives established by service level agreements. In particular, the Ellesson reference does not teach the processing of a user request being relayed back to the user.

Specifically, Applicant respectfully disagrees with the present Office Action that asserts that the Ellesson reference, at column 4 lines 53-55 and 62-66, column 5 lines 63-65, column 6 lines 3-15 and 28-37, column 7 lines 1-6, column 9 lines 46-65, and column 10 lines 4-8, teaches the processing of a user request being relayed back to the user. Applicant has thoroughly reviewed the cited columns and line numbers in the Ellesson reference and fails to find support for the teaching of the processing of a user request being relayed back to the user.

Instead, Applicant understands the Ellesson reference to teach a method of delivering packets from one customer to another, wherein the packets pass through two Edge Devices components. However, the Ellesson reference does not show the processing of a user's request, initiated by a user, and then ending with the user.

Specifically, the Ellesson reference in column 4, lines 5-12 outlines a method in Figure 1A that indicates a packet moves from one customer premise network to another customer premise network. For example,

...all packets originating in one customer premise network and destined for another pass through two Edge Devices components; i.e., the ingress Edge Device E1 at the interface between the backbone network and the source customer premise network A1, and the egress Edge Device E2 at the interface between the backbone network and the destination customer premise network A2.

Additionally, column 4, lines 46-52 of the Ellesson reference further support the movement of packets from one customer to another.

The ingress Edge Device E1 that receives the packet from the customer premise network A1 obtains the identity of the remote or egress Edge Device E2 that the packet is expected to traverse before being delivered to the destination customer premise network A2, either directly from the packet or based on a lookup.

(Emphasis added)

Moreover, Applicant's Figure 3 showing the route of a user request is clearly different from Ellesson's Figure 1A showing the route of a packet. For example, Applicant's Figure 3, along with the written description, shows steps 1 through 6, which outline the route in which a user's request gets processed. This route is initiated by User 310. It moves from 310 to component 320, to component 330, to component 340, back to component 330, back to component 320, and then to User 210 once again. In contrast, Ellesson's Figure 1A, along with its written description, shows the route in which a packet gets moved from A1 to A2. For example, E1 (Ingress Edge Device) receives a packet from A1 (Customer Premise Network). This packet gets moved to R1 (network router), which then proceeds to E2 (Egress Edge Device). The packet ends up at A2 (Customer Premise Network different from A1). In comparison, these two figures associated with Applicant's invention and Ellesson, show a different route for information, as well as dissimilar components handling the information, for different reasons.

Thus, based on the foregoing citations of Ellesson, Applicant respectfully asserts that Ellesson does not disclose "wherein processing of a request from a user received at a first component of said plurality of components proceeds forward through said components to a last component in said series and then backward through said components to said first component and then to said user".

Also, nowhere does the Ellesson reference disclose a suspension of a performance of service at each of the components after each of the components process a request. Ellesson remains silent as to a suspension of a performance of service.

In addition, the Bigus reference fails to overcome the shortcomings of the Ellesson reference. In particular, the Bigus reference appears to show a feedforward neural network 301. With reference to Figure 3 of Bigus, data enters on the left at input nodes 302-306 and flows through the neural network 301 from left to right. Please refer to column 6, lines 5-14, of Bigus, for example.

Therefore, Applicant respectfully submits that the Ellesson reference taken alone or in combination with the Bigus reference does not anticipate or render obvious the method and system of the present invention as recited in independent Claims 1, 12, 20, and 31. Accordingly, Applicant respectfully submits that independent Claims 1, 12, 20, and 35 overcome the cited references and are in a condition for allowance. As such, Claims 2, 4-7, 9 which depend on independent Claim 1 are also in a condition for allowance as being dependent on an allowable base claim. Also, Applicant respectfully submits that Claims 14, and 17-19 which depend on independent Claim 12 are also in a condition for allowance as being dependent on an allowable base claim. Additionally, Applicant respectfully submits that Claims 21, and 23-26 which depend on independent Claim 20 are in a condition for allowance as being dependent on an allowable base claim. Furthermore, Applicant respectfully submits that Claims 32-35 which depend on independent Claim 31 are in a condition for allowance as being dependent on an allowable base claim.

Claims 10, 11, 15, 16, 29 and 30

Claims 10, 11, 15, 16, 29 and 30 are rejected under 35 U.S.C. §103(a) as being unpatentable over Ellesson and Bigus in view of Mangipudi et al (6,728,748) (hereinafter

referred to as 'Mangipudi'). Applicant respectfully points out that independent Claims 1, 12, and 20 each recite that the present invention includes a method and system for resource allocation in a communication network supporting a plurality of application environments that is not rendered obvious by the Elleson reference taken alone or in combination with the Bigus reference, as described herein. Furthermore, the Mangipudi fails to overcome the shortcomings of the Elleson and Bigus reference.

In particular, Mangipudi appears to disclose a cluster of servers. With reference to Figures 2 and 3 of Mangipudi, any request from a client is sent through a routing host 200 to one of the servers 206 in the cluster. The server 206 responds directly back to the client. Please refer to column 1, line 56, through column 2, line 5, of Mangipudi, for example. Mangipudi does not disclose:

...wherein processing of a request from a user received at a first component of said plurality of components proceeds forward through said components to a last component in said series and then backward through said components to said first component and then to said user, wherein a performance of service is suspended at each of said components after said processing of a request by said each of said components, and wherein said metrics are measurable at points between said components...

The above limitations are not taught or rendered obvious by the Elleson reference taken alone or in combination with the Bigus reference, nor the Mangipudi reference. As such, independent Claims 1, 12, and 20 overcome the cited references and are in condition for allowance. Further, Claims 10, and 11 which depend on independent Claim 1 are also in condition for allowance as being dependent on an allowable base claim. Claims 15 and 16 which depend on independent Claim 12 are in condition for allowance as being dependent on an allowable base claim. Further, Claims 29 and 30 which depend on independent Claim 20 are in condition for allowance as being dependent on an allowable base claim.

CONCLUSION

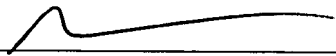
In light of the amendments and remarks presented herein, Applicant respectfully requests reconsideration of the rejected Claims for allowance thereof.

Based on the arguments presented above, Applicant respectfully asserts that Claims 1, 2, 4-7, 9-12, 14-21, 23-26 and 28-35 overcome the rejections of record. Therefore, Applicant respectfully solicits allowance of these Claims.

The Examiner is urged to contact Applicant's undersigned representative if the Examiner believes such action would expedite resolution of the present Application.

Respectfully submitted,
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Date: 6/20, 2007



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